

Amendments to the Claims:

Please cancel claims 1 - 10 without prejudice or disclaimer of the subject matter thereof and add the following new claims.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 10 (canceled)

11. (new) A plasma processing method for processing a specimen placed on a specimen table disposed inside of a processing chamber using plasma generated therein, wherein the specimen has plural layers of different films, the method comprising the steps of:

placing the specimen on the specimen table after respectively adjusting one of a temperature in a central portion of the specimen table and a temperature in an outer circumferential portion of the specimen table to a predetermined values and a difference between a temperature in a central portion of the specimen table and a temperature in an outer circumferential portion of the specimen table to a predetermined value;

providing a heat conducting gas between at least one space between a rear side of the specimen and an upper surface of the specimen table, and further generating a plasma inside the processing chamber and starting the processing of at least one layer of the films of the specimen;

changing one of pressures of the heat conducting gas in a central space and a circumferential space between the rear side of the specimen and the upper surface

of the specimen table to predetermined values and a difference between pressure of the heat conducting gas in a central space and a circumferential space between the rear side of the specimen and the upper surface of the specimen table to a predetermined value, after the previous step; and

generating the plasma inside of the processing chamber, and further restarting the processing of the specimen.

12. (new) A plasma processing method according to claim 11, further comprising the step of one of changing pressures of the heat conducting gas in the central space and the circumferential space between the rear side of the specimen and the upper surface of the specimen table to predetermined values and a difference in pressure thereof to a predetermined value while maintaining one of the temperature in the central portion of the specimen table and the temperature in the outer circumferential portion of the specimen table and the difference in temperature.

13. (new) A plasma processing method according to claim 11, further comprising the step of adjusting the temperature of the specimen table by adjusting one of a temperature of coolants passing through each of passages disposed at a central portion and at an outer circumferential portion of the specimen table and a difference of the temperatures thereof.

14. (new) A plasma processing method according to claim 11, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

15. (new) A plasma processing method according to claim 12, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

16. (new) A plasma processing method according to claim 13, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

17. (new) A plasma processing method according to claim 14, further comprising the step of one of changing pressures of the heat conducting gas in the central space and the circumferential space between the rear side of the specimen and the upper surface of the specimen table to predetermined values and a difference in pressure thereof to a predetermined value while maintaining one of the temperature in the central portion of the specimen table and the temperature in the outer circumferential portion of the specimen table and the difference in temperature thereof.

18. (new) A plasma processing method according to claim 14, further comprising the step of adjusting the temperature of the specimen table by adjusting one of a temperature of coolants passing through each of passages disposed at a central portion and at an outer circumferential portion of the specimen table and a difference of the temperature thereof.

19. (new) A plasma processing method for processing one by one a plurality of specimens placed on a specimen table disposed inside of a processing chamber using plasma generated therein, wherein the specimen has plural layers of different films, the method comprising the steps of:

placing a first specimen on the specimen table after respective adjusting one of a temperature in a central portion of the specimen table and a temperature in an outer circumferential portion of the specimen table to predetermined different values and a difference between a temperature in a central portion of the specimen table and a temperature in an outer circumferential portion of the specimen a predetermined value;

providing a heat conducting gas between at least one space between a rear side of the specimen and an upper surface of the specimen table, and further generating a plasma inside of the processing chamber and starting the processing of at least one layer of the films of the specimen;

placing a second specimen on the specimen table after processing the first specimen, and further providing the heat conducting gas and changing one of pressures of the heat conducting gas in a central space and a circumferential space between the rear side of the second specimen and the upper surface of the specimen table to respective predetermined values and a difference between pressure of the heat conducting gas in a central space and a circumferential space between the rear side of the second specimen and the upper surface of the predetermined table to a predetermined value; and

generating the plasma inside of the processing chamber and further starting the processing of the second specimen.

20. (new) A plasma processing method according to claim 19, further comprising the step of one of changing pressures of the heat conducting gas in the central space and the circumferential space between the rear side of the specimen and the upper surface of the specimen table to predetermined values and a difference in pressure thereof to a predetermined value while maintaining one of the temperature in the central portion of the specimen table and the temperature in the outer circumferential portion of the specimen table and the difference in temperature thereof.

21. (new) A plasma processing method according to claim 19, further comprising the step of adjusting the temperature of the specimen table by adjusting one of a temperature of coolants passing through each of passages disposed at a central portion and at an outer circumferential portion of the specimen table and a difference of the temperature thereof.

22. (new) A plasma processing method according to claim 19, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

23. (new) A plasma processing method according to claim 20, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

24. (new) A plasma processing method according to claim 21, wherein at least one of the pressure of the heat conductive gas, the difference in pressure thereof and the temperatures of the specimen table are adjusted on the basis of information obtained in advance before the processing of the specimen is started.

25. (new) A plasma processing method according to claim 22, further comprising the step of one of changing pressures of the heat conducting gas in the central space and the circumferential space between the rear side of the specimen and the upper surface of the specimen table to predetermined values and a difference in pressure thereof to a predetermined value while maintaining one of the temperature in the central portion of the specimen table and the temperature in the outer circumferential portion of the specimen table and the difference in temperature thereof.

26. (new) A plasma processing method according to claim 22, further comprising the step of adjusting the temperature of the specimen table by adjusting one of a temperature of coolants passing through each of passages disposed at a central portion and at an outer circumferential portion of the specimen table and a difference of the temperature thereof.